



OREGON WORKFORCE INVESTMENT: *Results & Trends*

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Industry Employment – A Glimpse Below the Surface

Introduction

We are often asked the question: “Does PRISM include occupational employment data?” The short answer is “no.” Occupational employment data are not collected from the approximately 100,000 employers that report wage information to the Employment Department on almost two million employees each quarter. Wage data provided by the employer is used primarily for the administration of the Unemployment Insurance (UI) program. Since occupational employment data is not a requirement for the administration of the UI program, it’s not collected from employers.

Industry employment data, however, are included in PRISM. But the question is, “What, if anything, can industry employment and wage data tell us about those individuals who are served by the workforce system and then find employment?”

This analysis will attempt to answer the questions, “Which industries pay the highest wages to those individuals served by the workforce system? and “What factors influence higher wages within those industries?”

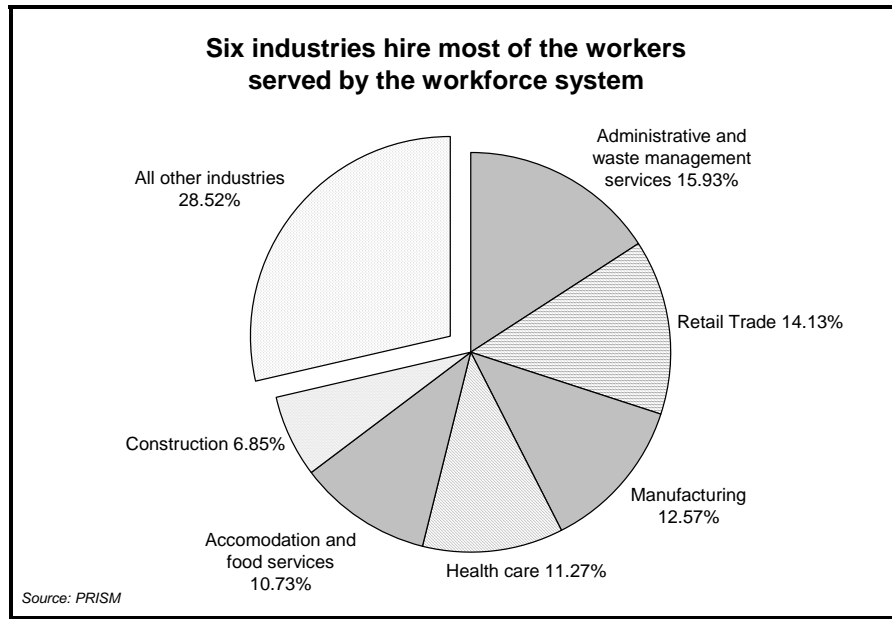
Key Findings

Education plays an important role, particularly in four industries: professional and technical services, education services, information, and finance and insurance. In these industries, almost one-half of the individuals who found a job after being served by the workforce system had at least some college or more and earned an average of \$15.63 per hour, \$8.38 above the state minimum wage during 2004-2005, the time period of this analysis.

On the flip side, the accommodation and food services and retail industries employed almost one out of every four individuals who completed services from Oregon’s workforce system between July 1, 2004 and June 30, 2005. In both industries, seven out of 10 individuals had no more than a high school education and they earned an average of \$9.34 per hour – \$3.09 below the statewide average (for workforce system customers) of \$12.43.

Seven Out of 10 Individuals Work in Six Industries

Of the roughly 169,000 individuals who found a job after being served by the workforce system between July 1, 2004 and June 30, 2005, over 120,000 (72%) went to work in six of the possible 20 industries (Graph 1). Topping the list is administrative, support, waste management and remediation services. Roughly 27,000 (15.9%) individuals went to work in this industry. Examples of businesses in this industry include telephone call centers, temporary help services, telemarketing businesses, janitorial and landscape services, and solid and hazardous waste collection.



Graph 1

Retail trade employed 14 out of every 100 individuals served by the workforce system. Almost 24,000 of these individuals went to work in retail trade between July 1, 2004 and June 30, 2005.

Third on the list is manufacturing, employing over 21,000 (12.6%) individuals after they received workforce services. Health care and social assistance employed over 19,000 (11.3%) individuals followed by the accommodation and food services industry where slightly over 18,000 (10.7%) went to work. Construction completes the list of the top six industries employing most of the individuals served by the workforce system. Over 11,500 (6.9%) went to work in this industry.

Industry Employment, Wages Vary

Industry wages vary considerably. This is partly due to the mix of occupations within each industry. When individuals served by Oregon's workforce system found jobs, their average hourly wages ranged from \$8.89 in accommodation and food services to \$29.18 in utilities.

Of the six industries most individuals went to work in after receiving workforce services, only two paid above the statewide placement average of \$12.43. Those two – construction (\$17.17/hour) and manufacturing (\$14.08/hour) – together employed over 32,700 (19%) individuals. In the remaining four industries, which account for over one-half of all placements, average hourly wages fell below the statewide average hourly wage of \$12.43. The four industries' averages were: health care and social assistance (\$11.97/hour); administrative, support, waste management, and remediation services (\$10.68/hour); retail trade (\$9.79/hour); and accommodation and food services (\$8.89/hour).

Of course, some individuals do go to work in industries where the average hourly wage is considerably higher than the PRISM statewide average of \$12.43. Industries paying an average hourly wage considerably above the statewide average include utilities, management of companies, public administration, and information. But these four industries employed only about 9,800 (5.8%) of the approximately 169,000 individuals who received services from Oregon's workforce system between July 2004 and June 2005.

Among all 20 industries, utilities paid the highest hourly average wage to those who had been served by the workforce system, but only 726 individuals went to work in this industry. Those individuals earned an average of \$29.18 per hour – \$16.75 more than the statewide average of \$12.43.

Even fewer individuals got jobs in management of companies. Of the approximately 169,000 individuals who did find work between July 2004 and June 2005, only 500 individuals went to work in management of companies earning, on average, \$17.30 per hour.

Individuals working in information earned an average of \$16.50 per hour, but only about 2,400 worked in this industry after receiving workforce services.

Of the four industries which paid the highest average hourly wages to individuals served by Oregon's workforce system, public administration employed the most workforce system completers. Over 6,000 individuals (3.6%) went to work in public administration earning an average of \$16.46 per hour.

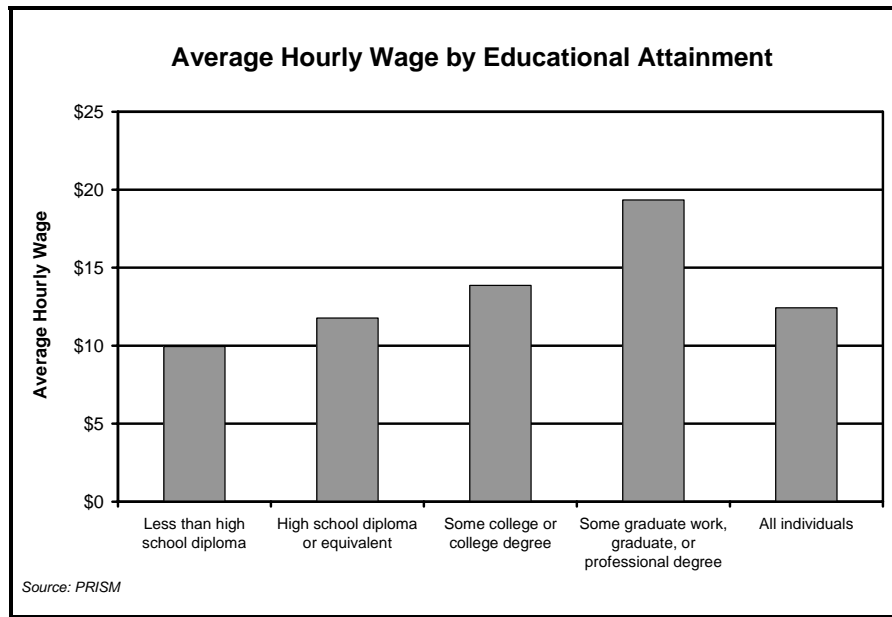
Table 1

Individuals Employed by Industry					
Universe: Those Who Completed Services Between July 1, 2004 and June 30, 2005					
Industry	Wage Gain Eligible	Percent of Total	Average Hourly Wage at Placement	Average Hourly 5th Quarter Wage	Average Wage Gain
Administrative and waste management services	26,862	15.93%	\$10.68	\$12.43	\$1.75
Retail trade	23,842	14.13%	\$9.79	\$11.38	\$1.59
Manufacturing	21,205	12.57%	\$14.08	\$15.26	\$1.18
Health care and social assistance	19,005	11.27%	\$11.97	\$13.33	\$1.36
Accommodation and food services	18,101	10.73%	\$8.89	\$10.21	\$1.32
Construction	11,549	6.85%	\$17.17	\$18.62	\$1.45
Public administration	6,147	3.64%	\$16.46	\$17.90	\$1.44
Educational services	5,421	3.21%	\$14.55	\$16.02	\$1.47
Wholesale trade	5,329	3.16%	\$14.05	\$15.03	\$0.98
Other services (except public administration)	4,799	2.85%	\$11.67	\$12.76	\$1.09
Transportation and warehousing	4,703	2.79%	\$14.03	\$14.98	\$0.95
Agriculture, forestry, fishing and hunting	4,664	2.77%	\$11.91	\$12.86	\$0.95
Professional and technical services	4,276	2.54%	\$16.29	\$17.72	\$1.43
Finance and insurance	3,935	2.33%	\$15.18	\$16.20	\$1.02
Real estate	2,708	1.61%	\$11.97	\$13.30	\$1.33
Information	2,431	1.44%	\$16.50	\$17.87	\$1.37
Arts, entertainment, and recreation	2,265	1.34%	\$10.75	\$12.36	\$1.61
Utilities	726	0.43%	\$29.18	\$31.28	\$2.10
Management of companies	500	0.30%	\$17.30	\$18.68	\$1.38
Mining	206	0.12%	\$14.84	\$15.23	\$0.39
Total	168,674	100.00%	\$12.43	\$13.83	\$1.40

Source: PRISM

More Education Equals Higher Wages – Mostly

The U.S. Bureau of Labor Statistics has released statistics showing the relationship between educational attainment and earnings. It's not a guarantee, but generally more education leads to higher wages. Individuals served by Oregon's workforce system are no different – average hourly wages increase as educational attainment increased (Graph 2). Individuals with some college or a college degree earn an average of \$2.10 more per hour compared with individuals with a high school diploma. The average hourly wage increases by an average of \$7.58 between high school diploma and some graduate work or more.



Graph 2

Generally, those occupations which require more education and work experience lead to higher wages. The same can be said about industry data – industries with a larger fraction of occupations requiring higher levels of education tend to pay higher wages. Graph 3 shows the average hourly wages by industry for those served by the workforce system along with the fraction of an industry's jobs requiring at least a bachelor's degree. The size of each bubble represents the number of individuals who were served by the workforce system and got a job between July 1, 2004 and June 30, 2005 – a larger bubble means more individuals became employed.

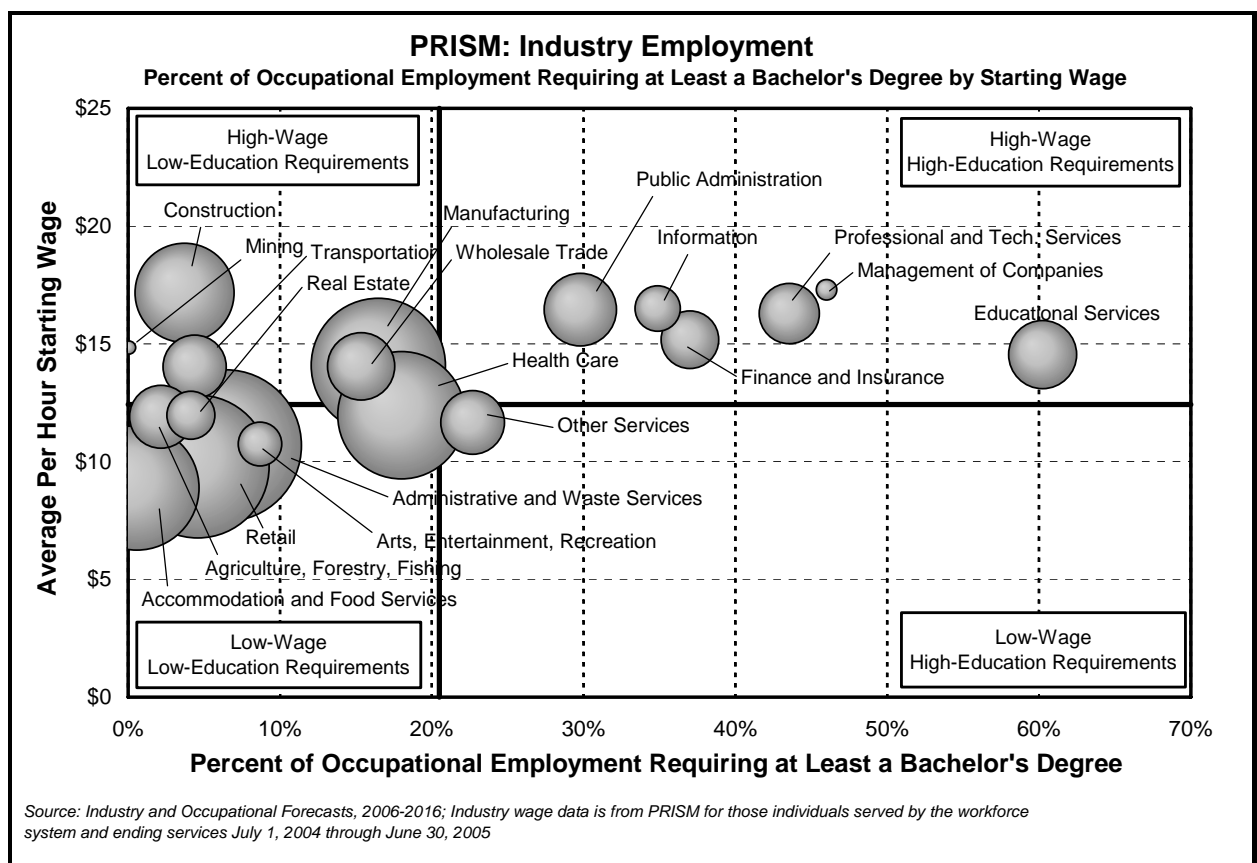
Educational services provides an example of an industry with relatively high wages, as well as education and training requirements. In this industry over 60 percent of individuals are required to have at least a bachelor's degree.

The professional and technical services industry also has high standards for education and training. Over 4,300 individuals went to work in this industry earning \$16.29 per hour, or \$3.86 above the average hourly wage across all industries.

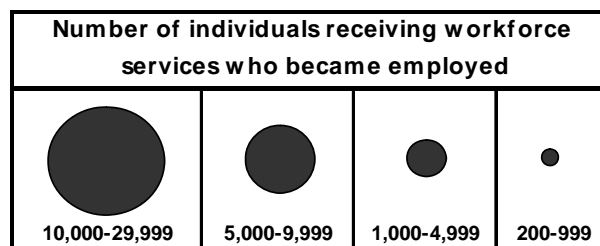
On the flip side, some industries have a smaller fraction of occupations requiring at least a bachelor's degree. Accommodation and food services is one of those industries. Less than 1 percent of jobs in this industry require at least a bachelor's degree. This is reflected in the average hourly wage of \$8.89, or \$3.54 below the statewide average of \$12.43.

A bachelor's degree or more is required for about 5 percent of the jobs in retail trade. Almost 24,000 (14.1%) individuals went to work in this industry after receiving workforce services, earning \$9.79 on average.

Some individuals do go to work in industries which have lower education and training requirements but tend to pay higher wages. These industries are shown in the upper left quadrant of Graph 3, identified as High-Wage Low-Education Requirements. Construction



Graph 3



provides an example of an industry with relatively high wages, but the fraction of individuals with at least a bachelor's degree is low. In the construction industry, only 3.7 percent of the occupations are required to have a least a bachelor's degree, but the more than 11,500 (6.9%) individuals who got a job in construction after receiving workforce services earned a \$17.17 average hourly wage, or \$4.74 above the statewide average of \$12.43.

Education Attainment of Hires Varies by Industry

PRISM collects educational data on individuals served by the workforce system. Graph 4 shows the level of educational attainment of the workforce system customers hired by each of the 20 industries.

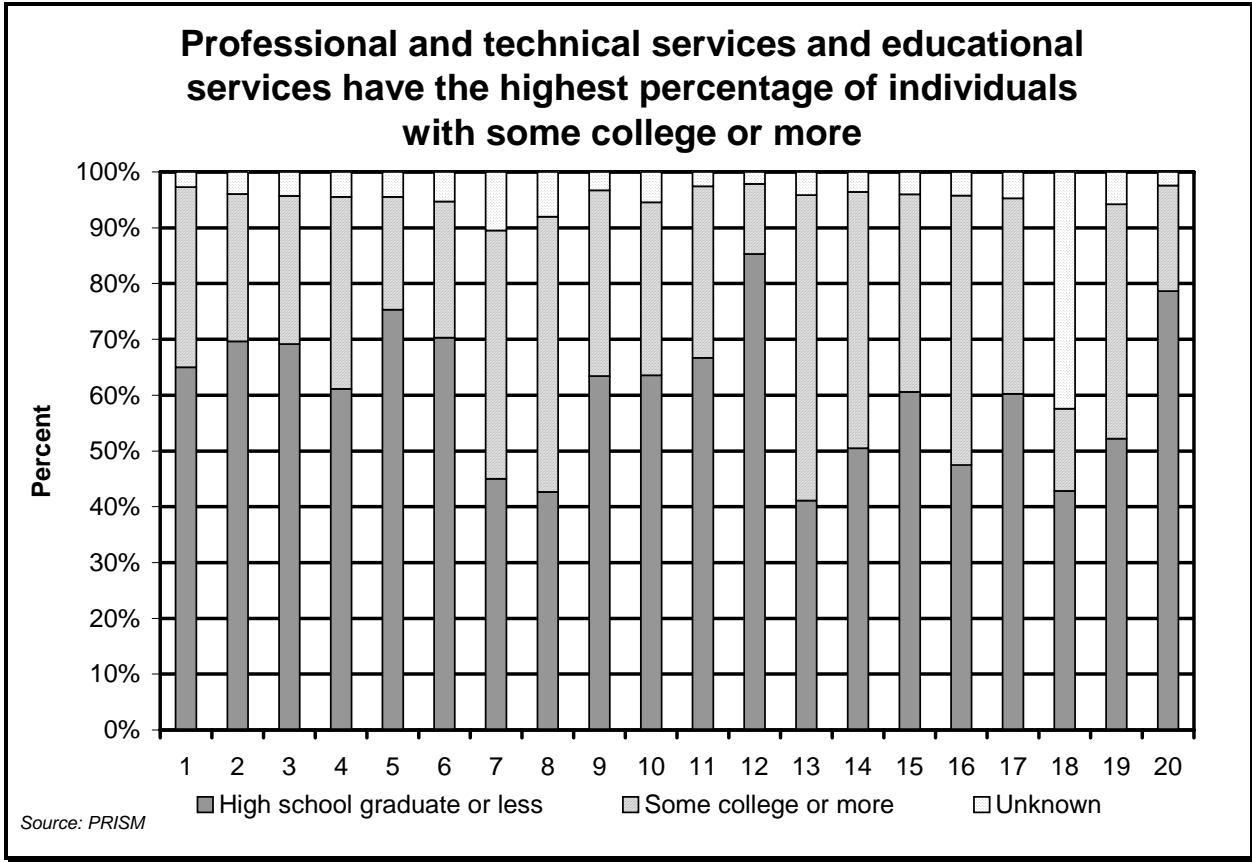
Several industries hired a larger share of individuals with a high school diploma or less. Agriculture, forestry, fishing and hunting is one of these industries. Over 85 percent (3,978) of the workforce system customers who found jobs in this industry had no more than a high school diploma. Accommodation and food service also attracts a large share of individuals with only a high school education or less. Over 18,000 individuals got a job in this industry after receiving services and three out of every four of those had no more than a 12th grade education.

Some industries tend to attract individuals with higher levels of educational attainment. After receiving workforce services, about 4,300 individuals got a job in professional and technical services. More than half of them (54.8%) had at least some college education. Examples of businesses within this industry include law offices, accounting and tax preparation firms, and architectural and engineering services.

Educational services also attracts a higher fraction of individuals with at least some college education. Of the approximately 5,400 individuals receiving workforce services and going on to work in educational services, 49 percent (2,673) had some college or more education.

Information is another industry with a high educational requirements. After receiving workforce services, over 2,400 individuals got a job in information and 48.3 percent (1,174) of those had some college, a college degree or graduate work.

With the types of businesses in public administration, it's clear why this industry attracts workers with high levels of educational attainment. Examples of businesses in this industry include executive and legislative bodies, courts, correctional institutions, public finance activities, and legal counsel. Over 6,100 individuals went to work in public administration and over 44 percent (2,715) of those had some college or more.



Graph 4

- Legend**
- | | |
|--|---|
| 1 Administrative and waste mngmt svcs | 11 Transportation and warehousing |
| 2 Retail trade | 12 Agriculture, forestry, fishing and hunting |
| 3 Manufacturing | 13 Professional and technical services |
| 4 Health care | 14 Finance and insurance |
| 5 Accommodation and food svcs. | 15 Real estate |
| 6 Construction | 16 Information |
| 7 Public administration | 17 Arts, entertainment, and recreation |
| 8 Educational services | 18 Utilities |
| 9 Wholesale trade | 19 Management of companies |
| 10 Other services (except public administration) | 20 Mining |

Summary

Generally, industries where a larger fraction of the workers are working full-time and the occupations within the industry require higher education tend to pay higher wages.

So why shouldn't the workforce system encourage job seekers to target those higher-paying industries when they seek employment? Well, those served by the workforce system have a wide range of skills, education, and experiences, which in some cases limit their ability to find and keep jobs. Beyond education, individuals entering the workforce system may have a range of other challenges to overcome – substance abuse, the need for child care, or disability. These factors may limit the individual's ability to take certain kinds of work, commit to particular work hours, etc. Some dislocated workers may have been laid-off from high-paying positions, but after retraining, are now starting a new job in an entry level position.

Technical Note

This analysis focused on the 168,674 individuals who completed services from the workforce system between July 1, 2004 and June 30, 2005, became employed during the quarter of exit or the quarter after exit, and were working one year later. The determination of employed is based on Oregon quarterly Unemployment Insurance (UI) tax reports. In order to be counted in this analysis, an individual's social security number had to show up in Oregon unemployment insurance tax records the quarter of or quarter after exit and one year later.

NAICS (North American Industry Classification System) Sector codes were used for industry analysis. NAICS is an industry classification system that groups establishments into industries based on the activities in which they are primarily engaged. There are 20 sectors in NAICS. After receiving services from Oregon's workforce system, it's possible for individuals to be employed in two jobs representing two different industries. In the case where an individual holds two or more jobs, PRISM determines a primary industry of employment for reporting. The primary industry is determined by the industry in which the individual earned the highest amount of wages in the quarter of exit or quarter after exit.

Data for this analysis was submitted by the PRISM partners who include:

DCCWD: Community College – Carl Perkins Post-secondary

DCCWD: Title 1B – Youth, Adults, and Dislocated Workers

DCCWD: Title II – Adult Basic Education

DHS: Children, Adults and Families – TANF

DHS: Office of Vocational Rehabilitation Services

OED: Employment Services

Additional information

For more information, visit the PRISM web site at www.oregon.gov/PRISM/, or contact John Glen at John.L.Glen@state.or.us or 503-947-1234.